

REMARKS

Status of the Claims

Claims 1-36 were presented for examination in this application, including independent claims 1, 6, 8, 27, 29 and 33. An Office action was issued on May 16, 2005, and an Amendment and Response was filed on August 11, 2005 in response thereto, addressing each of the rejections.

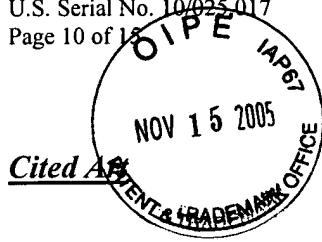
All pending claims stand rejected under U.S.C. § 103(a) as allegedly being obvious in view of U.S. Patent No. 6,661,775 to Nakayama ("Nakayama"), and in further view of U.S. Patent No. 5,956,640 to Eaton et al. ("Eaton").

Claim Amendments and Interview Summary

Applicants thank Examiner Vu for his time and courtesy extended during the telephonic interview on November 7, 2005, with the undersigned attorney and his colleague, Joel Lehrer, and for the helpful suggestions with respect to claim amendments. The following discussion is intended to constitute a proper recordation of this interview in accordance with MPEP §713.04, and also to provide a full response to the Office action.

The November 7, 2005, discussion focused on the independent claims, primarily on the differences between the claimed invention and the Eaton reference. Consistent with these discussions and the Examiner's suggestions, Applicants have amended claims 1, 3, 6-8, 11-14, 16, 18, 22-24, 27-29 and 35 to more particularly define the subject matter they regard as their invention, and note that, as discussed during the interview and in more detail below, Eaton, or any other reference of record, either alone or in proper combination, does not teach or suggest the inventions defined by the amended claims.

No new matter has been introduced by these amendments, support therefor being found throughout the specification, as well as in claims 1-36, as originally filed. Applicants submit that the claim amendments recited above duly comply with the requirements of 37 C.F.R. 1.116 and respectfully request entry of these claim amendments.



Nakayama

Nakayama describes a method and router for segmenting messages for transmission over a network. Each segment contains redundant information such that the original message can be reconstructed from a subset of the segments. The method determines the optimal number and size of the segments in such a manner that the probability of being able to reconstruct the original message is maximized. See, Abstract. As noted by the Examiner, “Nakayama does not detail assigning one of a plurality of destination addresses to each segment and the plurality of destination addresses being assigned to a receiving host.” Final Office Action, 2005, page 3.

Eaton

Eaton describes a message transmission system that facilitates roaming of wireless devices among various networks and network access points. The system includes a memory for storing multiple addresses assigned to the device – each address being used to enable reception while the device is in different physical locations with respect to its local geographic area. See, Abstract. As a result, “a receiving device having any number of personal as well as group address can be efficiently addressed in the local area system in which the receiving device is roaming when the address assignments are coordinated, by converting the transmission attributes of all assigned addresses to that of a primary address or primary roaming address.” Eaton, column 15 line 65 through column 16 line 4. Although Eaton describes delivering messages to a device using one of a number of addresses, the system does so only to determine to which address a particular message should be sent given the geographic locale of the devices. As discussed in more detail below, Eaton does not, therefore, teach or suggest assigning different addresses to *individual* segments of a message.

Claim Rejections

Independent Claims 1 and 8

Independent claim 1, as amended, recites an apparatus that includes “a file-splitting processor for splitting a file into a plurality of message segments and assigning one of a plurality of final destination addresses to each segment, the plurality of final destination addresses being assigned to a receiving host.” Also, claim 8, as amended, recites a method that includes “splitting the file into a plurality of message segments,” and addressing “each message segment of the plurality of message segments using one of a plurality of final destination addresses assigned to a receiving host.”

Thus, Applicants’ claimed invention contemplates assigning multiple, final destination addresses to file segments that are being sent to the same destination host. As a result, individual file segments do not carry enough information to permit one intercepting a subset of the packets to determine which packets belong to any particular file without knowing which destination addresses represent the same receiving host. Eaton simply does not teach or suggest this approach or the above claim limitations. Instead, in contrast to Applicants’ claims 1 and 8, in Eaton, the entire message is sent to one of a plurality of destination addresses, depending on the location and/or roaming status of the receiving device.

Accordingly, because Eaton does not teach or suggest every element of independent claims 1 and 8, as amended, Applicants respectfully submit that Eaton, alone or in combination with any other reference, fails to anticipate these independent claims. Without acquiescing to the rejection of claims 2-5 and 9-26, Applicants note that these claims depend directly from either claim 1 or claim 8, as amended, and include all the limitations thereof, and thus, are also patentable. Reconsideration and withdrawal of the rejection of claims 1-5 and 8-26 under 35 U.S.C. §103(a) is respectfully requested.

Independent Claims 6 and 27

Claims 6, 7, 27 and 28 were also rejected under 35 U.S.C. §103(a) as being obvious in light of Nakayama and Eaton. As described above, Eaton describes a system for routing messages to receivers having multiple addresses to facilitate roaming among service areas. However, independent claims 6 and 27, as amended, both recite “splitting a file into a plurality of message segments” and “assigning one of a plurality of initial source addresses to each message segment.” Eaton, however, does not teach or suggest the above limitations. Again, unlike the system described by Eaton, Applicants’ claimed invention assigns one of multiple addresses representing the initial source host *to each file segment* of a file in preparation for transmission over a network. As a result, similarly to claims 1 and 8, individual file segments do not carry enough information to permit one intercepting a subset of the packets to determine which packets belong to any particular file or the host from which they originated. Thus, in contrast to Eaton, the file segments of one file are transmitted with different source information and, therefore, in a substantially more secure manner.

Accordingly, because neither Nakayama or Eaton teaches or suggests every element of independent claims 6 and 27, as amended, Applicants respectfully submit that Nakayama and Eaton, either alone or in combination, fail to render these claims as obvious. Without acquiescing to the rejection of claims 7 and 28, Applicants note that these claims depend directly from claim 6 and 27, as amended, respectively, and include all the limitations thereof, and thus, are also patentable. Reconsideration and withdrawal of the rejection of claims 6, 7, 27 and 28 under 35 U.S.C. §103(a) is respectfully requested.

Independent Claim 29

Claims 29 also stands rejected under 35 U.S.C. §103(a) as being obvious in light of Nakayama and Eaton. Claim 29, as amended, recites “splitting the file into a plurality of message segments, each message segment comprising a final destination specifier, encrypted protocol information and encrypted message data.” Neither Eaton or Nakayama teach or suggest the above limitations. As mentioned above, Nakayama splits messages into segments prior to transmission, and, as noted by the Examiner “the pieces will be encoded with a header portion

identifying the pieces as IDA pieces in a manner similar to the way multi-cast packets are identified.” Nakayama, column 13 lines 10-12. Nakayama does not, however, describe sending “encrypted protocol information” with the message segments. The encoding process described by Nakayama is merely an identification mechanism by which message segments being transmitted using the Nakayama method can be identified by adding an identifier into a segment header. In contrast, encryption allows the assembly protocol to be effectively hidden from view during transmission until decrypted at a destination.

Eaton does not cure the deficiency noted above. While Eaton may describe “a receiver [that] decodes the corresponding block information and determines instruction type and which receivers should look at the message” (Eaton, column 7 lines 38-40), the decoding process relates to the message itself, not protocol information being sent with the message, as recited in Applicants’ claim 29.

Accordingly, because Nakayama or Eaton do not teach or suggest every element of independent claim 29, as amended, Applicants respectfully submit that these references, alone or in combination, fail to anticipate claim 29. Without acquiescing to the rejection of claims 30-32, Applicants note that these claims depend directly from claim 29, as amended, respectively, and include all the limitations thereof, and thus, are also patentable. Reconsideration and withdrawal of the rejection of claims 29-32 under 35 U.S.C. §103(a) is respectfully requested.

Independent Claim 33

Claim 33 recites, in part, “assigning each host of a plurality of hosts to a first domain of a plurality of domains” and “restricting network traffic to message transmissions among hosts within the same domain or neighboring domains.” Neither Nakayama or Eaton teaches or suggests these limitations.

While Nakayama may contemplate transmitting messages across multiple domains and/or networks, there is no teaching or suggestion of restricting network traffic to message transmissions among hosts within the same domain or neighboring domains” to “camouflage network sources and destinations” as recited in claim 33. In fact, Nakayama suggests that “there

can be any number of nodes, e.g., K nodes, and any number of virtual links between the source node R, and the destination node k.” Nakayama, column 14 lines 12 – 15. Eaton is similarly silent with regards to restricting network traffic to particular domains.

In light of the foregoing, reconsideration and withdrawal of the rejections of independent claim 33 and claims 35-36 dependent therefrom under 35 U.S.C. §103(a) based on Nakayama and Eaton are respectfully requested.



CONCLUSION

Applicants respectfully submit that, in light of the foregoing remarks, claims 1-36 are in condition for allowance, and request that application proceed to issue. If, in the Examiner's opinion, another telephonic interview would expedite the favorable prosecution of the present application, the undersigned attorney would welcome the opportunity to discuss any outstanding issues and to work with the Examiner toward placing the application in condition for allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Mark L. Beloborodov", written over a horizontal line.

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